

### REMARKS

Reconsideration of the above-identified application as amended respectfully is solicited on behalf of the Applicants.

With the instant response, one (1) claim, namely independent claim 15, has been amended in order to materially advance the status of the present prosecution. Original claims 18-22 have been cancelled as being inconsistent with the present amendment to claim 15. Claims 31-41 are newly-added.

Claim 15 has been rejected under 35 USC § 112, first paragraph. With the present response, the language found objectionable by the examiner has been deleted from the claim.

Claims 15-23 and 25-27 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kosuga *et al.* reference in view of Kobayashi *et al.*, U.S. Patent No. 4,356,228. Claims 15, 16, and 19-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kosuga *et al.* reference.

Regarding independent claim 15, and as mentioned, the Examiner has noted that the Kosuga *et al.* reference "does not show that the pellets have such a viscosity at temperatures of from 80°C - 180°C." However, the Examiner considers Kosuga to use the same organic thermoplastic resin oligomer materials as Applicants.

With the present response, claim 15 has been amended to recite that the organic material has a viscosity of "no greater than 200 cps." In this regard, MPEP § 2144.05 may be instructive insofar as the Kogusa reference appears to disclose a range "so broad as to encompass a very large number of possible distinct compositions," citing *In re Peterson*, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003), and thus "might present a situation analogous to the obviousness of a species when the prior art broadly discloses a genus." *Id.* In such a situation, an applicant can rebut a *prima facie* case of obviousness based on overlapping ranges by showing that the claimed range achieves unexpected results relative to the prior art range, MPEP § 2144.05 citing *In re Woodruff*, 16 USPQ2d 1034 (Fed. Cir. 1990), or by showing that the art teaches away from the claimed invention, *Id.* Citing *In re Geisler*, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997).

As to such showings, Applicants submit that Kosuga requires the use of extruders or other high-pressure application to effect the impregnation of the fibers. In contrast, the claimed materials may be impregnated using a bath or other low pressure means. Thus, it is believed that the claimed pellets may be produced using less expensive and complicated equipment and, accordingly, more economically than those of Kosuga. Such is a result and advantage of the claimed invention which could not be predicted from the teachings of Kogusa. Indeed, as Kogusa teaches the use of extruders, it is submitted that one of ordinary skill following those teachings would not have been motivated to select, within the realm of the materials encompassed by Kogusa, those having low viscosities approaching that of water which would not be amenable to the drag induced flow produced in extruders.

It therefore is submitted that claim 15 should be considered to properly distinguish over the art made of record. Claim 16 further describes the pellets of claim 15, and likewise should be considered allowable for the reasons given in connection therewith. Claims 16-17, 23 and 25-26 further describe the pellets of claim 15, and likewise should be considered allowable for the reasons given in connection therewith.

Claim 24 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kosuga *et al.* reference in view of Kobayashi *et al.*, U.S. Patent No. 4,356,228. The Examiner has noted that the Kosuga reference does not show the oligomers listed in claim 24. The Kobayashi reference has been cited as disclosing carbon fiber reinforced composites which include as the matrix resins polyesters, poly(bisphenol A carbonate), polysulfones, styrene resins, and acrylic resins. The Examiner is of the opinion that it would have been obvious to use a bisphenol A resin in the organic thermoplastic resin oligomer coating of the present invention since bisphenol A, polyester, and acrylic resins are functional equivalents.

However, and in contrast to claims 1 and 15, the resins listed in Kobayashi reference appear to be used as the matrix resin rather than, as is claimed, as a coating which is applied to the fibers and which coated fibers, in turn, are encased in a matrix resin to form a pellet. In any event, to the extent that such materials would be used as a coating, the Kobayashi reference provides no additional teaching as to the use of such materials as having a viscosity of "no greater than 200 cps." Rather, such materials appear to be encompassed by the universe of materials in Kogusa, but without any particularized teaching as to viscosity. Moreover, to the extent that the Examiner that the would consider the materials of Kobayashi to be the same as those of claim 24, it is noted that claim 24 recites "bisphenol A" while Kobayashi discloses poly(bisphenol A carbonate), *i.e.*, polycarbonate.

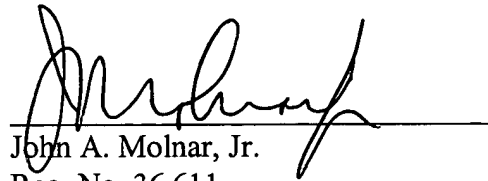
Thus, it is submitted that claim 24 should be considered to distinguish over the Kosuga and Kobayashi references, whether taken singly or in combination.

As to the newly added claims 31-41, independent claim 31 recites "an organic material having a viscosity at a temperature range of from 80 °C – 180 °C no greater than 1500 cps, *wherein the organic material comprises a monomer.*" As neither the Kogusa nor the Kobayashi reference discloses the use of monomers, claim 31 should be considered to be allowable over the art made of record. Similarly, claims 32-41 further describe the pellets of claim 1, and therefore should be considered allowable for the reasons given in connection therewith.

In view of the foregoing remarks, wherein the claim program as amended has been shown to clearly define the claimed invention as being patentable over art made of record, the issuance of a Notice of Allowance is earnestly solicited.

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Respectfully submitted,



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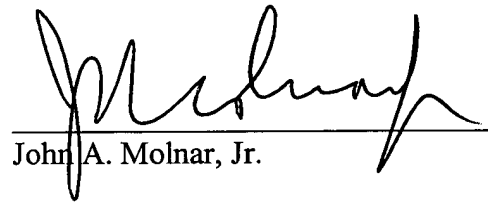
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I hereby certify that this correspondence is being deposited on September 16, 2003, with the United Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



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